



## For over 35 years, expanded PolyTetraFluoroEthylene (ePTFE) has been a mainstay of the cardiovascular device industry.

This durable biocompatible material has been approved for use in products ranging from vascular grafts to Endovascular AAA devices, having withstood the rigorous demands of clinicians and regulatory bodies worldwide.

BD Peripheral Intervention OEM Products offers implantable ePTFE products and custom encapsulation services that allow medical device manufacturers to incorporate ePTFE into their own devices. OEMs benefit from the company's four decades of trusted, industry-proven expertise.

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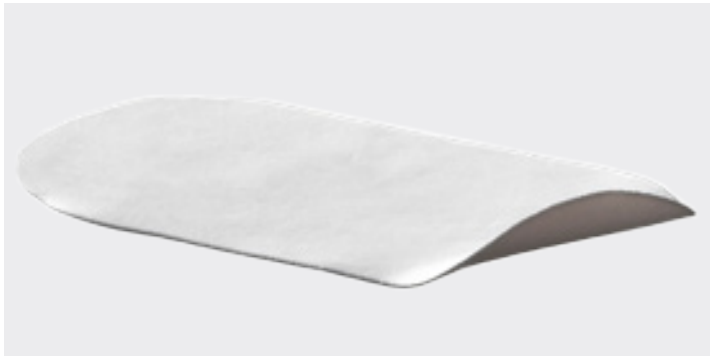
### ePTFE Benefits in Clinical Use

The physical properties of ePTFE make it highly suitable for use in implantable vascular devices. It can allow devices to withstand flexion created by pressure pulses by adapting to the natural action of blood vessels. The material is also exceptionally durable and resistant to wear inside the body, making it viable for safe stent deployment. In addition, ePTFE's permeability enables outgassing while preventing leakage. It is temperature stable, chemically inert and hydrophobic. Further, its microporous nature encourages tissue ingrowth, which can be beneficial for anchoring implanted devices.

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### Overcoming Manufacturing Challenges with Encapsulation

As treatment of cardiovascular disease moved increasingly towards endovascular approaches, a need arose to provide durable ePTFE coverings for nitinol and stainless steel devices. Some OEMs opted to attach ePTFE tubes to their devices mechanically with sutures, despite the inherent risk of holes and tears - not to mention the extensive skilled labor required. The ePTFE used for these devices had to be thick enough to stand up to the mechanical forces exerted by metal and the attachment sutures, limiting the ability to reduce the device's insertion profile.



An alternative solution was developed to address these issues: ePTFE encapsulation. This process allows a metal structure to be quickly and completely “sandwiched” (encapsulated) inside bonded layers of ePTFE. Without the need to suture, products could be covered with thinner material more suited for the access and maneuverability demands of modern devices. Moreover, the manufacturing process could be streamlined to produce greater throughput with lower costs.

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## Applications

ePTFE is available in a wide variety of tubular diameters, lengths, widths, and wall thicknesses. It is used by medical device manufacturers in applications such as:

- Stent Coverings
- Orthopedic Implant Components
- CABG Devices
- Septal Defect Devices
- LVAD Cannulae Components
- Vascular Grafts

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## Why Use BD Peripheral Intervention OEM ePTFE for Encapsulation?

For 40 years, BD Peripheral Intervention OEM Products has offered innovative solutions to medical device manufacturers that combine best-in-class technologies with a proven commitment to quality. The company offers custom ePTFE encapsulation services to cardiovascular device manufacturers, leveraging the capabilities used to manufacture C.R. Bard’s own industry-leading stent graft products.

Choosing an ePTFE provider like BD Peripheral Intervention OEM that has ISO Certified facilities; approved and well-maintained quality systems; control of critical IP; long-term access to raw materials; and a documented history of clinical and regulatory success helps ensure a streamlined process and a finished device that meets expectations.

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## About BD Peripheral Intervention OEM Products

BD Peripheral Intervention OEM provides a wide range of products and services to the medical device industry, including implantable ePTFE and textiles as well as components for cardiovascular device solutions such as PTA / PTCA angioplasty balloon catheters and guidewires.